

## REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Claims 9 and 18 have been amended to more particularly point out the structural characteristics of the invention. Specifically, the claims have been amended to recite that the nonwoven fabric is formed of polyester fibers which are heat bound to each other into at least one monolayered paper web, said polyester fibers containing ~~50%~~ 30-70% by weight ~~or more~~ of a polyester fiber having a double refraction ( $\Delta n$ ) of 0.170 or more, a heat shrinkage stress at 200°C of 0.10-0.60 g/d, and a mean single fiber fineness of 1.0-6.5 denier. This is supported by pages 19-26 of the specification, particularly page 19, lines 12-19 and page 23, lines 10-13.

The process steps of claim 12 have been incorporated into claims 9 and 18. Thus the claims now recite that said nonwoven fabric is made by a process comprising the steps of:

(i) forming a first monolayered paper web comprising said polyester fiber having a double refraction ( $\Delta n$ ) of 0.170 or more, a heat shrinkage stress at 200°C of 0.10-0.60 g/d, and a mean single fiber fineness of 1.0-6.5 denier together with a heat weldable binder fiber in a weight ratio of 70:30-30:70,

(ii) subjecting the first monolayered paper web to a heat treatment under pressure to bind the fibers to each other,

(iii) optionally applying a second monolayered paper web to said first monolayered paper web, and

(iv) repeating step (ii).

Support for the process limitations are also found on pages 19-26 of the specification. Note that step (i) also requires the use of the heat weldable binder fiber. Note that the range of “50% or more” of the polyester fibers has been changed to “30-70%” to remove the indefinite range and is supported in original claims 3 and 5.

In addition, claim 18 has been amended to distinguish over claim 9, in now requiring a semipermeable film be formed on a side of the nonwoven fabric.

Claims 9 and 18 were rejected under 35 USC 112, second paragraph, as being indefinite, in reciting only desired physical properties of the nonwoven fabric rather than setting forth structural or chemical limitations. This ground of rejection is respectfully traversed as applied to the amended claims.

The claims have been amended to clearly define the structure and process of making the claimed nonwoven fabric.

The pore size of the claimed nonwoven fabric is an inherent result of the use of the claimed polyester fibers in the claimed process. Without use of the particular polyester fibers required by the claims, and the particular process of making the nonwoven fabric, such a polyester fabric having uniform pores dispersed uniformly therein that can be applied to a support member for a high pressure filtration semipermeable membrane could not be obtained.

In view of the foregoing, the rejection of claims 9 and 18 under 35 U.S.C. 112, second paragraph, is deemed to be overcome.

Claims 9, 11 and 17-18 were also rejected under 35 U.S.C. 103 as obvious over Pall et al. This ground of rejection is respectfully traversed.

The Pall filter material is a distinctly different type of liquid filter from that of the present invention and is now clearly distinguished from the claimed invention.

The claimed nonwoven fabric is formed of polyester fibers which are heat bound to each other into at least one monolayered paper web. Furthermore, the claimed nonwoven fabric is made by a process comprising the steps of:

(i) forming a first monolayered paper web comprising said polyester fiber having a double refraction ( $\Delta n$ ) of 0.170 or more, a heat shrinkage stress at 200°C of 0.10-0.60 g/d, and a mean single fiber fineness of 1.0-6.5 denier together with a heat weldable binder fiber in a weight ratio of 70:30-30:70,

(ii) subjecting the first monolayered paper web to a heat treatment under pressure to bind the fibers to each other,

(iii) optionally applying a second monolayered paper web to said first monolayered paper web, and

(iv) repeating step (ii).

Thus, the present fabric is made from one or a plurality of monolayered paper webs. See page 21, line 13 to page 24, line 25 of the present specification. And the polyester fibers contained in the monolayered paper web include the particular polyester fiber defined in the claims together with a heat weldable fiber so that the polyester fibers are heat bound to each other.

In contrast, the Pall filter is cylindrical fibrous structure (see Fig. 3 of Pall). Moreover, the cylindrical fibrous structure of Pall comprises a fibrous mass of polymeric fibers wherein the fibers are substantially free of fiber to fiber bonding and secured to each other by mechanical entanglement. See Pall, the abstract, column 3, lines 27-45, column 4, lines 1-15, column 8, line 66 to column 9, line 5 and column 9, line 60 to column 10, line 9.

Accordingly, the structure of the claimed invention is clearly different from, and not suggested or obvious from, that of Pall.

Lastly, claims 9-10 and 17-18 are rejected under 35 U.S.C. 103 as obvious over Shinjou et al. This ground of rejection is respectfully traversed.

Enclosed herewith is a Rule 132 Declaration of the inventor, Mr. Shinoki, showing the advantages and unexpected results of the claimed invention in comparison with the invention of the cited reference to Shinjou et al. The enclosed comparison demonstrates that a nonwoven fabric A of the present invention is unexpectedly superior in construction than a nonwoven fabric B of the cited reference. This unexpected superiority is due to the inventors' discovery that use of the particular polyester fibers according to claims 9 and 18 result in a nonwoven fabric having a great number of uniform and fine pores, which is capable of producing a superior high filtration semipermeable membrane. The cited reference fails to teach or suggest use of such polyester fibers according to the claimed invention nor the unexpected superior results obtained from use of such fibers in a nonwoven fabric for a semipermeable membrane.

In view of the foregoing, it is believed that each ground of rejection set forth in the Official Action has been overcome, and that the application is now in condition for allowance. Accordingly, such allowance is solicited.

Respectfully submitted,

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